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"*NEC TENUI PENNA.*"

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J. W. HOLLAND, A. M., M. D., Editor.
H. A. COTTELL, M. D., Managing Editor.

DR. HAMILTON'S STATEMENT.

Of late the daily press has given space to rumors from different quarters breathing threats of exposure of the phenomenal stupidity and mendacity of the medical attendants of the late President. It is no new thing to see a newspaper manufacture out of whole cloth a sensational story concerning matters that for a time have had the popular ear. It is spicy and startling, makes the paper sell, and gives it a name for being "wide awake."

It is any thing but amusing to a doctor who values the respect of his neighbors to see his professional conduct in an important crisis subjected to misrepresentation and unmerited abuse. Many will read the accusation and few the defense. There is an illnatured streak in most persons, which makes them delight in hearing detraction of others, and which prevents their taking any pleasure in reading exculpations. A just and reasonable man, in observing that the President's doctors had been mistaken in their theory of the course of the ball, and consequently more sanguine of his recovery than the facts warranted, would not, as some have done, break into a tirade against medical men and lose faith in medical art. He would be more apt to conclude that if men of insight, experience, and learning were so much in the dark when they had only external symptoms to guide them, then great indeed must have been the difficulty in bring-

ing the science to its present state, far as it is from perfection.

If men of such attainments err in a case of transcendent interest, how infinitely small are the chances that the ignoramus and the charlatan will take right views in ordinary practice.

In order that justice may be done, we quote in a conspicuous place Dr. Frank Hamilton's account (*Med. Gazette*) of some points in the pathology and management of the case that have been disputed:

NO ABSCESSSES IN THE LUNGS.—It may be necessary, however, to repeat, inasmuch as contrary statements have been made, that the lungs contained not even the most minute abscess, and that there was no metastatic abscess found in any of the structures examined, except one less than half an inch in diameter near the surface of the left kidney. There were three small serous cysts under the peritoneal covering upon the convex edge of the right kidney, each about the size of a vertical section of a large pea. The abscess found between the transverse colon and the liver was evidently not metastatic, but probably was caused by the original injury. There was no cicatrix or wound of the liver, nor any thing to indicate that it had suffered injury in the slightest degree.

The "serous cysts" mentioned by Dr. Hamilton were found under the microscope to be adhesions of the peritoneum.

Another reflection that commends itself to the judicious mind is this, that the surgeons exhibited self-control and sagacity in no mean degree when they obstinately declined to probe for the ball, notwithstanding the clamor raised against them.

PROBING.—Since it has been thought by some that it was the duty of the surgeons to have ascertained positively the course and location of the ball, it is

proper to consider whether the one or the other were practicable.

As to determining the course of the ball by a probe, every anatomist will see that it was impossible, if he will consider the very tortuous course which the ball must have taken to reach its final destination; that it passed through the solid structure of the vertebra, and that no metallic instrument sufficiently firm to give indications of the course and direction which it took within the body could ever have reached the ball; nor would any surgeon of experience familiar with gunshot wounds of the belly, in the absence of any satisfactory or conclusive evidence as to what course the ball had taken, venture to introduce a probe into the abdominal cavity for the purpose of exploring the supposed track; nor indeed, if he had evidence as to the course and situation of the ball, could he have been justified in such an exploration? No point is better settled in surgery than that interference of this sort in gunshot wounds of the belly is meddlesome, useless, and dangerous; and had it been done, and a fatal peritonitis in consequence been set up, the surgeon doing it would have been justly held responsible for the fatal result.

One seeker of notoriety, not having at heart a proper regard for the code of justice between doctors, rushed often into print to urge extraction of the ball, and to denounce the surgeons for their temporizing policy.

AS TO THE EXTRACTION OF THE BALL.—As to the possibility of the extraction of the ball safely, it would have required a large tegumentary and muscular incision as a means of approach to the spinal column, the actual removal of the whole of the twelfth lumbar vertebra in order to furnish a sufficient channel through which the bold surgeon should advance with his instrument for extraction; and after emerging from the cavity thus made in the spinal column he would have to penetrate or grope his way cautiously between the ganglionic system of nerves and arteries, veins, lymphatics, including the thoracic duct, all of which are vital structures almost inextricably joined to each other on the front and sides of the spinal column, and the lesion of any one of which must have proved inevitably fatal.

The criticisms made upon the mode of dressing have drawn the following comment:

LISTERISM.—Throughout the whole course of the treatment, contrary to what has been publicly said repeatedly, so far as it was possible to apply the system of antiseptic surgery advocated by Mr. Lister to a wound of this character it was rigorously employed.

The closing paragraph shows that though the surgeons had accepted a provisional hypothesis of the course of the ball, yet they were not wholly satisfied on that head, and therefore adopted a plan of expectant observation which subsequent events have established as the wisest possible under the circumstances.

I am reminded now to say, in reply to some suggestions made from time to time that we ought to have made a counter opening in the lower portion of the long sinus which terminates in the right iliac fossa, that there was no period of time during the progress of the case in which we felt absolutely certain that what we recognized in the fossa as a point of induration was the ball; nor were we entirely certain at any time where the lower end of the sinus was actually situated. Nothing but a very flexible instrument could ever be introduced; and inasmuch as when introduced its presence in the track could not be recognized by the sense of touch, we were left without any means of determining with a sufficient degree of accuracy to justify an operation where the lower end of the channel was. Indeed it is probable that the flexible catheter employed never reached the lower end of the channel, but doubled on itself near the crest of the ilium. To have cut through or between the great mass of muscles in the lower portion of the lumbar region for the purpose of making a counter incision into a small channel, the course of which we did not and could not know, even approximately, would have been under any circumstances an unjustifiable procedure, and especially so in the case of the President, whose hold upon life during all this long period seemed to depend on a thread.

UNIVERSITY OF LOUISVILLE.—The chair of Obstetrics and Gynecology, made vacant by the death of Professor Crowe, has been filled by the appointment of Prof. Theophilus Parvin, M.D., of Indianapolis. This announcement can not but be gratifying to the alumni, the present medical class, and all friends of the institution. Prof. Parvin is known so widely and favorably as doctor, teacher, and writer as to need no introduction nor commendation to medical men.

ACCORDING to Dr. J. Marion Sims, ninety to ninety-seven per cent of ovariectomies get well.

Original.

RÉSUMÉ OF THE PATHOLOGY AND TREATMENT OF CERTAIN ACQUIRED DEFORMITIES.

BY EDWARD VON DONHOFF, A. M., M. D.

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Deformities may result from diseases of the bones and joints, and the muscles and ligaments have much to do with their continuance. But there are also other causes—primary muscular, tendinous, and cicatricial contractions—which demand so great a share of the earnest attention of the general practitioner, as well as that of the surgical specialist, that I have deemed it a matter of sufficient interest to offer a short review of what is at present known respecting the pathology, together with a few points of importance in the treatment of these conditions.

A contraction proper can really only take place in muscles, since in a physiological sense they alone can and do contract upon irritation; or at all events contraction is always accomplished through the excitation of the muscular fibrillæ. Usage, however, has extended the meaning of the term. We speak of contractions of tendons and fasciæ meaning that they have shrunken or shortened and have lost their elasticity. Primary disease of the ligaments, tendons, and fasciæ, occurs but rarely. Relaxation of the ligaments may exist as a primary affection in consequence of defective construction, or as sequelæ following atrophy of their muscular fibers. A muscle may be too short from birth from lack of development; but this condition can not be, as will be seen, styled a true contraction. Muscles also contract sympathetically in diseases of joints.

In muscular contractions due to disease of the muscle the inflammation does not necessarily begin in the muscle itself, but inflammation, and especially suppuration, in its immediate vicinity—its sheath—the muscular substance being secondarily affected, may also result in contraction. In acute suppurations in the neck it is common for the sterno-cleido mastoid to contract and pull the head over to the affected side. So, too, in acute inflammation of the psoas muscles the thigh is sharply flexed on the body. The fact, however, that the same phenomenon is observed in periostitis of the femur, for instance, renders it difficult at times to differentiate between this and the first-mentioned affection.

The edematous swelling observed in the soft parts in cases of acute suppurative synovitis indicates the implication in an acute inflammation of the adjacent muscles, and this may give rise to their contraction. But there may be some other explanation. Drawing up a painful limb is almost an involuntary maneuver—a sort of reflex action of the sensitive on the motor nerves. This is an open question as yet; though Bonnet and Malgaigne have offered apparently satisfactory explanations. Cases of acute suppuration in muscles and in joints and their vicinity do occur without the usually attendant phenomena of contractions.

As idiopathic diseases, chronic inflammations of muscles are rare; nor do they always induce contractions. If we class inflammation with neoplastic formation, the causes indicated by Virchow for muscular contractions are inaccurate; since fatty degeneration, molecular disintegration of the contractile substance, and simple atrophy are not always the forerunners of contraction; they are simply marked with progressive decrease in strength. Where inflammatory new formations exist in muscles ("and this is particularly the case when the inflammation extends from other tissues to the muscles"), not only does atrophy of its contractile substance result, but there is also a cicatricial atrophy and the cicatricial connective tissue takes the place of the muscle—the latter is actually transformed into connective tissue. This process produces the drawing together by virtue of the atrophy and causes the shortening.

In cases of chronic articular inflammation where ankylosis has been completely established, the muscle finally degenerates into a mere string of connective tissue.

Primary muscular contractions resulting from constant irritation of certain nerves is much like the contraction induced by the electric current. The irritation may be located in the nerve-trunk or some one of the nerve-centers. Irritation of a nerve-trunk in virtue of the presence of a foreign body, which in its turn sets up a neuritis, may result in a contraction of the muscles to which it is distributed. Contractions of reflex origin result at times from irritations far distant; as contractions of the muscles of the thigh resulting from ulcers situated on the cervix uteri. Sayre has written an account of a series of cases of this kind resulting from congenital attachments of the prepuce to the corona glandis.

Secondary contractions result from a pa-

ralysis. As examples we have cases in which contractions of the extensor palmaris muscles follow paralysis of the musculo-spiral nerve, the paralytic club-foot, distortion of the face following paralysis of the facial nerve of one side, etc. Contraction resulting from paresis may be readily distinguished by the readiness with which the muscles admit of passive motion.

Another cause of contraction is to be found in the continued approximation of the points of attachment of muscles. Scoliosis (lateral spinal curvature) is caused in this way and is here mentioned as one of the more grave results of long-continued habits of certain kinds—that of standing most upon one foot, writing while leaning over toward one particular side, etc. In children predisposed to spinal affections, these habits are quite potent in hastening their advent. Positions of the child in utero favoring the action of certain sets of muscles to the exclusion of others, are probably the causes of congenital clubfoot. Another supposition is that these deformities result from *true contractions* of the muscles, due to inflammation of the medulla or brain; another, that arrest in the development of the ankle-bones is the prime cause. All such suppositions are more or less based upon important data which may be adduced.

When ligaments, fasciæ, and tendons shrink they frequently cause deformities *per se*, but more often serve to increase those already existing. Chronic synovitis which extends itself to the capsule of the joints is fruitful of ligamentous shrinkages in that situation. Continued malposition as in congenital club-foot—this affection being a primary one, due to the too short plantar fasciæ—results in an increase of the original shortening, and sometimes in an incurable condition of the deformity. From continued flexion of the thigh, the fascia lata at times undergoes contractions which can not be thoroughly overcome, even when the patient is anesthetized, and must be cut through before complete extension can be effected.

Contractura palmaris is an affection peculiar to elderly people and is variably due to rheumatic troubles and to the peculiar employment of the person affected. (B. von Langenbeck.) Frequently it is impossible to assign any definite cause for the disease.

Relaxation of ligaments is particularly fruitful of deformities when affecting the lower extremities, and is due to a too feeble development. The results are most noticeable during the active growing period of the sub-

ject; genu varum, genu valgum, and the so-called knuckling of the foot are most common at this age. Pes planus is also ascribable to ligamentous relaxation; secondarily there may be a contraction of the peroneal muscles, which by some surgeons is regarded as the primary cause.

When large sections of skin are burned, slough, or are torn away, or when any wound is sustained which heals by granulation, the resulting cicatrix is more or less instrumental in the production of a deformity which will be great or small, according to the size of the cicatrix—the larger, the more forcible will be the contraction from all sides. Cicatricial contractions result from a gradual loss of moisture on the part of the inflammatory new formation, and its conversion into dry connective tissue. It contracts like any body that is drying up. The degree of deformity is also dependent upon the situation of the cicatrix; on the flexor side of the extremities it is most to be dreaded. Cicatrices that occur in the continuity of deep-seated muscles, and in tendons, also produce deformities; which in the latter, when of the fingers, are most apt to be permanent.

TREATMENT.

The most patent indication in the treatment of deformities resulting from contractions is to make artificial extensions. For this purpose various methods are employed; the most common is the practice of manual stretching (manipulation). Frequently the application of a strength rarely possessed is necessary to overcome the firm unyielding large strata of connective tissue in extensive cicatrices and strongly contracted muscles, as well as for the purpose of breaking up strong fibrous adhesions about joints. To avoid irregularities and embarrassment it is customary to use mechanical apparatuses.

The extending machines now used depend upon the combined action of the screw and cogwheel; the philosophy of their action is very old, and our modern machines differ from the ancient ones only in that they are lighter, better finished, and less cumbersome. Mechanical extension is preferable, firstly, because it can be made more evenly, and secondly, because it can be kept up continuously. Unfortunately some situations (the hip and shoulder) are only partially amenable to treatment, because of the difficulty experienced in adjusting suitable apparatus for fixing either the pelvis or scapula. Extension should always be gradually and moderately applied—gradually to avoid tearing

the parts, and moderately to avoid exhausting the patient.

Muscular contractions dependent on nervous affections will not admit of direct treatment. If possible the neuroses should be cured, when the muscular trouble will correct itself. When purely of nervous origin and of not too long standing muscular contractions can be temporarily overcome by anesthetics. Patients suffering from acute articular inflammations extend their limbs without difficulty when thoroughly anesthetized. (In these instances the contractions are of a reflex character.)

Orthopedic apparatus is principally used in the treatment of contracted ligaments and fasciæ. Superficial cicatricial contractions are better treated with continued pressure by means of properly-applied adhesive strips (which promote atrophy) than by extension, except in certain situations.

Distension is combined with compression in the treatment of annular cicatricial contraction. Esophageal, urethral, and rectal strictures as commonly treated with bougies afford examples of this method.

When it is found impossible to overcome deformities by other treatment, tenotomy, myotomy, or the subcutaneous division of various fasciæ may be advantageously done.

The old operation of tenotomy was one of questionable propriety, and most frequently resulted in not only a failure to attain the desired end, but usually in the creation of a new and incurable malady. The old operation consisted of a section through the tendon and the super-jacent skin, etc., and was almost certain to be followed by extensive death of the tissues—the tendon naturally suffering most. Strohmeyer discovered and first practiced the subcutaneous method now universally employed; and von Langenbeck first introduced it to the German surgical world, where it soon attained deserved popularity. Tenotomy is only an adjuvant to orthopedy, and its success depends upon the steps taken to secure the advantages sought to be obtained from the operation.

Suppose the tendo achillis to have been tenotomized. After a few days, from six to eight, it is necessary to begin the application of a properly directed force for the purpose of stretching the new structure which has been interposed between the ends of the divided tendon. If we fail to do this the result is negative, for the reason that the new structure undergoes cicatricial contraction to such a degree as to shorten the tendon quite as much as before the operation.

Subcutaneously divided tendons heal very much like simple fractures and meet with the same interferences in the reparative process. At times a divided artery pours out a large quantity of blood, which may subsequently undergo decomposition, pus is formed, and the tendon dies. Fortunately this impediment is rare. Ordinarily a provisional ensheathing neoplasm is formed rapidly, and at the end of from fourteen to twenty-one days the tendon is completely restored; a fibrous connective tissue structure has been interposed between the separated ends, which very nearly resembles the original tendon.

Tenotomy should only be done for the relief of contractions of such tendons as are not provided with perfectly formed sheaths. Hence the fingers should never be tenotomized; for anatomical reasons it is impossible that repair should take place in these tendons as readily as in tendons surrounded by loose connective tissue. Suppuration is always an attendant of digital tenotomy, and repair never succeeds it. Tenotomy should not be done for the relief of ankylosed joints; gradual stretching of the surrounding muscles comprises all that should be attempted besides breaking up old adhesions.

Sometimes it is necessary to divide tendons for the cure of antagonistic contractions; the contracted muscle is thus rendered inactive for a time, and its paretic antagonist is subjected to less work. In the meantime, the formerly contracted, now divided, muscle has had its tendon lengthened, and so the deformity is cured. Absolute paralysis is a contra-indication for the above procedure. Tenotomy practiced on paretic (not absolutely paralyzed) muscles is said to have a marvelously revivifying effect; but should only be done in the event of the failure of tenotomy of their antagonist.

The fascia lata is frequently divided with marked benefit. The fascia palmaris is a striking exception to this rule. Dupuytren, von Langenbeck, and Billroth describe the results of such practice in a manner calculated to prevent its further exhibition. Extensive suppuration and sloughing and a tedious treatment are the only rewards (?) the venturesome surgeon obtains. Ligaments are beneficially divided in cases of clubfoot and genu valgum. Of course such operations are indicated only in extreme emergencies, and should be done with the utmost care. The subcutaneous opening of the joint-cavity is not followed by any bad effects when carefully done.

While it would seem natural to relieve deformities resulting from cicatricial contractions by cutting through the latter, such operations are in general to be deprecated; the resulting granulating wounds are only new beds for the development of new contractions.

In the case of a child sent me by Prof. J. A. Ochterlony I operated with a view to relieving a contraction of the fingers, which had resulted from a burn-wound. Instead of cutting through the cicatrix vertically a long flap including its whole length was made. I was enabled to make proper extension upon a straight splint provided for the purpose, and had the satisfaction of obtaining an excellent result. With the exception of one of their number all the fingers resumed and retained their entire usefulness. In this one the cicatrix had not been entirely dissected up.

Skin-grafting and transplanting of large flaps of skin constitute the preferable operations in cases of burn-cicatrices on the neck and face. In every instance artificial extension with orthopedic appliances must be made and kept up long after the wounds resulting from the operation have healed. The operation itself is only an aid to the apparatus.

It may not be deemed inappropriate to conclude this paper with a few remarks respecting the treatment of deformities, resulting from antagonistic contractions, by means of gymnastics and electricity. Our ability to cure will depend on what can be done for the paralysis; and here opens the wide field of neuro-pathology.

Many cases of muscular paralysis are hopeless at the outset, and an early recognition of this fact will save much labor and concern. The best results are obtained in cases of incomplete paralysis of the lower extremities of children. The administration of cod-liver oil, quinine, iron, strychnia, malt, and salt-baths and friction applied to the impaired muscles are remedies suited to these cases. Time often does more than any thing else for the cure of these lesions, the pathology of which is but vaguely understood. The Swedish movement-cure is much in vogue, and in exceptional cases effects much good; it is certainly the only rational gymnastic treatment. Electricity is also much employed; however, it is more practiced than understood. The mild, constant current seems to be the most useful.

Ziemssen, Duchene de Boulogne, and Remak have done most for scientific electro-

therapeutics. Treatment by electricity is followed by more or less success, dependent upon the patience of both subject and operator; often the first evidences of the slightest benefit are postponed until both are well nigh tired of the experiment. We are advised, however, not to lose hope because of our failure to notice twitchings of the muscles early in the treatment. For the electrization of special (individual) muscles the poles should be applied at points corresponding to the entrances of the largest nerve-trunks going to them. (Remak.)

The substitution of artificial rubber muscles over the site of parietic ones is specially commendable in cases of clubfoot. The results are excellent. The practice was first inaugurated by Barwell, and subsequently adopted by Billroth, Luecke, Sayre, and others.

Lastly, every care should be taken to guard against atrophy resulting from disuse of already impaired muscles.

LOUISVILLE.

Correspondence.

Editors Louisville Medical News:

At a meeting of the Floyd County Medical Society, on September 7th, the question of the inaccuracy of clinical thermometers incidentally came up, which resulted in a comparative test of all the thermometers present. A spirit-lamp and cup of water were brought into requisition, and the water heated to a degree somewhere within Fahrenheit's scale, but as to where our thermometers failed to settle the question. Five thermometers were produced and plunged into the cup, and recorded as follows: 108.4°, 108.2°, 107.6°, 107.5°, 107°. The above represented four different makers, two being of Tiemann's make. The test proves that at least four out of five of those tested are incorrect, and a timid doubt intrudes on my mind as to the fifth one.

After the test there was a short silence, but no one dared to claim that his was correct; but I thought that I could detect in the eyes of each of the owners a shade of satisfaction that, if coined into words, would have said, "My brothers, you are wrong."

I have observed among men great tenacity in favor of the correctness of their own opinions and their watches, and now among doctors may be added also their thermometers. But in our bewilderment on this sub-

ject your journal came to our relief, as it has done upon other subjects, and pointed the way out. In your issue of the 3d instant you directed our attention to the Winchester Observatory of Yale College for a correct standard, and our society ordered its secretary to purchase a thermometer and send it there for correction. Meanwhile we each flatter ourselves that we carry in our vest-pocket an accurate thermometer.

JOHN L. STEWART,
Sec'y Floyd County Med. Society.

NEW ALBANY, IND.

Editors Louisville Medical News:

Is it the duty of a physician who is called to a case under the treatment of another physician to learn from the first one whether or not he has been formally dismissed and settled with before attending the call? Or can he with propriety attend the call at once on being informed by the patient or responsible parties that they do not intend to have the first physician in the case any longer?

SUMMITT, MISS.

J. M. CURTIS.

[According to the Code of Medical Ethics, art. 5, sec. 29, it is sufficient that the first physician has "been regularly notified that his services are no longer desired." Information that this has been done may be received from the patient or the patient's friends. It is not necessary to ascertain it from the first physician.—EDS. NEWS.]

Reviews.

Rheumatism: Its Nature, its Pathology, and its Successful Treatment. By T. J. MACLAGAN, M.D. London: Pickering & Co.

The central ideas of this book are, first, the miasmatic origin of rheumatism; second, that the salicyl compounds act upon rheumatism as quinine does on the paroxysmal fevers.

It is the opinion of the author, propounded with logical skill and enforced by considerable evidence, that the rheumatic poison is malarial, similar to, though distinct from, the poisons of intermittent and remittent fever. He also accepts the modern view that malarial poisons are organisms allied to, although differing from, the contagia, and believes further that they owe their morbid action to their organic development within the system.

In 1876 the author introduced salicin as a remedy in acute rheumatism, and claims that the experience of four years has sustained it as a specific superior to salicylic acid. He quotes Flint as saying that the acid has produced toxic effects and even death, though no such effects are attributable to salicin, while the latter probably controls rheumatism as well as the former.

He combats Senator's theory that salicin acts by being converted into salicylic acid in the body, asserting, to the contrary, that the theory lacks evidence; and that while the two agents exercise a like action on the rheumatic poison, they have an essentially different action on the system.

The book has three hundred and twenty-eight pages, and is replete with interesting reflections on other points connected with the general subject.

Even those least disposed to agree with Dr. MacLagan in his peculiar ideas will derive pleasure from the forcible style and dialectic ability with which he sets forth views that, to say the least, are highly suggestive.

Landmarks, Medical and Surgical. By LUTHER HOLDEN, Ex-president R. C. S., assisted by JAMES SHUTER, M. A. Camb., F. R. C. S. From the third English edition. With additions, by WILLIAM W. KEEN, M. D., Professor of Anatomy, Pennsylvania Academy of Fine Arts, etc. Philadelphia: Henry C. Lea's Son & Co. 1881.

The original idea of the little book was to educate the touch on the normal living body, not to teach by diagrams. Those who wish to train eye and hand in this way can not do better than to use Holden as a guide.

The additions made by Dr. Keen are to be found on every page. They are always judicious and leave one with the impression that the English edition must have been quite incomplete on many practical points.

Observations with the Hemacytometer upon the Globular Composition of the Blood and Milk. By FREDERICK P. HENRY, M. D., Physician to the Hospital of the Protestant Episcopal Church, Philadelphia. Published by F. A. Davis, 923 Chestnut Street, Philadelphia.

Bartholow's Lectures on Antagonism of Medicines and the prize essay whose subject is indicated above are this year fruits of Cartwright's endowment. The essay bears evidence of having been the outcome of laborious days. It is a collection of original facts well stated and conclusions the logic of which is satisfactory. Those in regard

to milk are so practical as well as new that we quote them for the use of health-officers and others who have sought in vain for an easy and reliable method of testing the richness of milk:

1. In fresh milk a count of the globules is a matter of slight difficulty.
2. A milk containing two million globules per centimeter is an excellent specimen.
3. Menstruation diminishes the number of the milk globules.
4. The hemacytometer, on account of its convenience and accuracy, is the most valuable single method for examining milk.

Books and Pamphlets.

THE PRESCRIBER'S MEMORANDA. New York: Wm. Wood & Co. 1881.

THE WILDERNESS CURE. By Marc Cook. New York: Wm. Wood & Co. 1881.

FIRST ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF NEW YORK. Albany, 1881.

TRANSACTIONS OF THE INDIANA STATE MEDICAL SOCIETY, THIRTY-FIRST ANNUAL SESSION, 1881. Indianapolis.

INDIGESTION AND BILIOUSNESS. By J. M. Fothergill, M.D., etc., etc. New York: William Wood & Co. 1881.

CHRONIC PELVIC ABSCESS. A Contribution to the Differential Diagnosis of Abdominal Tumors. By A. F. Erich, M.D., Baltimore. Reprint.

A MANUAL OF HISTOLOGY. Edited and prepared by Thomas E. Satterthwaite, M.D., President of New York Pathological Society, in association with others. With one hundred and ninety-eight illustrations. New York: Wm. Wood & Co. 1881.

FEMALE DISEASES: THE RESULT OF ERRORS IN HABIT AND HYGIENE DURING CHILDHOOD AND PUBERTY. With Remarks on the Treatment of Rachialgia with Igni-puncture (Paquelin's Cautery). By R. J. Nunn, M.D., Savannah, Ga. 1881.

LECTURES ON THE SURGICAL DISORDERS OF THE URINARY ORGANS. Delivered at the Liverpool Royal Infirmary, by Reginald Harrison, F.R.C.S., Surgeon to the Infirmary. Second edition, considerably enlarged. New York: Wm. Wood & Co. 1881.

LECTURES ON THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE CHEST, THROAT, AND NASAL CAVITIES. By E. F. Ingals, A.M., M.D., Lecturer in Rush Medical College, Chicago, etc. With one hundred and thirty-five illustrations. New York: Wm. Wood & Co. 1881.

ATLANTA MEDICAL REGISTER. New Series, Vol. I, No. 1.

This is the new name by which the old and highly respectable Atlanta Medical and Surgical Journal is to be known hereafter. Its editors are John Thad. Johnson, M.D., and James B. Baird, M.D.

Medical Societies.

THE INTERNATIONAL CONGRESS.

PROCEEDINGS OF THE SECTION OF MATERIA MEDICA AND PHARMACOLOGY.

[From the British Medical Journal.]

THE ACTION AND USES OF ANTIPYRETIC MEDICINES ADMINISTERED INTERNALLY UPON SEPTICEMIA AND ALLIED CONDITIONS.

Prof. Binz (Bonn) read a paper on this subject, of which the following is an abstract:

1. In the present state of our knowledge there are two modes in which antipyretic remedies may be conceived to operate; first, by increasing the discharge of the pyrexial heat; secondly, by checking its production.

2. The quantity of heat discharged may be augmented by direct withdrawal (tepid water), or by facilitating the circulation through the skin (digitalis, cutaneous irritants).

3. The production of heat may be lessened by repeated cooling of the surface, and especially by the internal use of antizymotics.

4. Febrile diseases commonly owe their origin to the introduction and rapid development of substances akin to ferments. Several of these have been shown to resemble yeast in being low vegetable organisms or derived from such organisms. They enter the glands, where they undergo multiplication, increase the metabolic processes, generate products of decomposition which exert a paralyzing action on the nervous system, and raise the standard of temperature throughout the body.

5. Owing to impaired action of the heart in certain stages of the disorder, or to contraction of the cutaneous vessels, the skin becomes anemic and gives off less heat than usual. The internal temperature rises accordingly.

6. Quinine, our chief antipyretic, acts by directly combating the efficient cause of the disorder, and by checking the abnormal metabolism going on in the body. The nervous system takes no part or only a secondary part in this operation. In intermittent fevers quinine prevents the paroxysms by attacking their infective cause. The paroxysms are not the essence—the substantive element—of the disease; they are only a symptom of it. The substantive element is the poison deposited in the colorless corpuscles of many organs, especially the spleen. There are fevers without paroxysms and paroxysms without fever. It is just those intermittent fevers which run their course without paroxysms that are the most malignant. The malarial poison rapidly causes disintegration of the tissues and the blood, and so paralyzes the nerve-centers.

7. The reduction of acute splenic tumors by quinine depends upon the adverse influence exerted by the alkaloid on the infective poison to which the morbid over-action of the spleen and its consequent enlargement are due. "*Cessante causa cessat effectus.*" Even a healthy spleen may be reduced in size by large doses of quinine; the alkaloid vigorously checking the oxidation of its principal elements, the colorless corpuscles. Quinine has no direct influence on the vasomotor nerves.

8. Quinine attacks the malarial poison with especial energy; on this fact depends the so-called spe-

cific action of quinine in intermittent fevers. The same relation, but in a minor degree, subsists between quinine and the infective poison of enteric fever, between mercury and iodine and the poison of syphilis, between salicylic acid and the "irritant" in acute articular rheumatism.

9. An antipyretic which in one disease instantaneously arrests the fever may be wholly powerless in another. The difference depends on the fact that the various antizymotics act very unequally upon the individual *schizomycetes* and ferments; one will paralyze them rapidly, by another they will hardly be affected.

10. The past history of therapeutics and recent achievements in the domain of etiology and pharmacology entitle us to assume that by persistent scientific inquiry and practical observation we may succeed in discovering a specific antidote for every species of infective or septicemic malady.

ON INFLUENCE OF HYDROCHLORATE OF QUININE ON MALARIAL GERMS. By Dr. Ceci (Cerino).

Dr. Ceci gave an account of experimental researches made in the laboratory of Prof. Klebs, of Prague, on the influence exerted by quinine-hydrochlorate on the development of germs contained in malarial soils. A cultivation-liquid of a five-per-cent solution of isinglass was employed, infected from different sources, and in every case it was found that the presence of very minute proportions of this salt exercised a remarkable power in preventing or checking the development of the *schizomycetes*. One part in eight hundred was sufficient to prevent any development of germs. The *bacilli malariae* made their appearance very seldom in the cultivation-liquids, even when the proportion of quinine was very insignificant.

Dr. Wood (Philadelphia) said that the whole study of antipyretics hitherto was scarcely more than a speculation, because the fundamental equation of the problem had been neglected. Elevation of bodily temperature might depend upon detention of heat as well as upon excessive production of heat, and an antipyretic remedy might diminish fever simply by increasing the dissipation of heat, when it was believed to lessen its production. The very first question should always be whether the antipyretic influenced the production or the dissipation of heat. Calorimetric observations were therefore absolutely necessary. Many experiments on the influence of quinine on the heat-function had been made by himself and Dr. Reichert in the laboratory of the University of Pennsylvania. In nearly every case there was a slight increase in the production of heat; and always a very great increase in its dissipation. The augmented production seemed to be an indirect result, due to the excessive dissipation of heat.

Prof. Stokvis (Amsterdam) brought forward some new researches bearing upon the question whether the symptoms produced by an artificial elevation of the body were to be identified with the symptoms of fever. This question had to be decided in three ways—the clinical, the pathologico-anatomical, and the chemical. The dangers of fever were not in proportion to the elevation of temperature, as was well exemplified in the case of typhoid fever. Dr. Stokvis gave an account of some experiments, conducted under his direction, to determine whether the chemical waste of the body was the same in artificial elevation of temperature and in fever-heat. It was found, contrary to what was generally stated, that with artificial

elevation of temperature there was not only no increase of urea in the urine, but even a slight decrease; while at the same time the quantity of carbonic acid exhaled was increased. Therefore there was strong reason to believe that there was an essential difference between the chemical disruption of tissues in fever-heat and in artificial elevation of heat. The experiments seemed to prove that in artificial heating the fatty compounds and the hydrates of carbon were wasted while in fever-heat all the compounds of the body, especially the nitrogenous, were destroyed. By muscular action the temperature of the body could be more elevated in a healthy man than in any other way, but the equilibrium between the loss and production of heat not being disturbed, as it was in the fever, the increase of temperature observed did not reach above 0.5° C. (0.9° F.). Here again the destruction of fatty tissues and hydrates of carbon was the cause of the increased heat. Dr. Stokvis insisted that no explanation of the action of antipyretics could be given until the pathological process called "fever" was studied in all its details.

Dr. Wilberforce Smith (London) observed that Dr. Binz's paper foreshadowed a study of the clues now existing, which would lead to the probable discovery of germicides which may successfully prevent or cut short specific fevers. Quinine as a specific for ague, and mercury for syphilis, were both germicides. Quinine seemed to have a special effect on fungi, and probably the malarial poison was of a fungous nature. On the other hand, bichloride of mercury appeared to have a special destructive effect on bacteria, and it might be asserted that the germs producing syphilis were of this nature. Moreover, quinine and mercury had special affinity for the same tissues as the diseases affected. Quinine and ague affected the blood and spleen, while mercury and syphilis were so related that it had at times been difficult to decide what lesions were the effect of one, and what of the other.

Dr. Churton (Leeds) recalling the fact that body temperature was the external expression of the molecular activity of various forms of protoplasm, said their activity was capable of alteration by entirely different kinds of influence, namely, (1) the dynamic or vibratory, (2) the parasitic, and (3) the poisonous. He suggested a subdivision of antipyretics into (1) dynamic, (2) antiparasitic, (3) antidotal. An antiparasitic would probably also have a dynamic action upon the protoplasm of the organism, especially if the quantity of it in the plasma were relatively large.

Dr. Wood further remarked that Dr. Stokvis's observations on the urine supported the conclusions he had formed for some years as the result of calorimetric observations.

Prof. Binz and Dr. Donath made some remarks, and the President, Prof. Frazer, summed up the discussion. He said that in the able paper of Dr. Binz and in the discussion which had taken place, two aspects had been brought before the section. In the one the pharmacology of antipyretic agents had been considered thoroughly; while in the other the *modus operandi* of these agents in the pyrexial condition had been discussed rather on a basis of theory than of induction from certainly known conditions. The two aspects were not necessarily in harmony. The one was perfectly independent of the other, and as a consequence false conclusions were almost certain to be arrived at if the theories or facts of the one class were mixed or confounded with those of the other. There was naturally a strong tendency to complete the evidence in favor of any particular theory; and

accordingly the facts of pharmacology had in many instances been supplemented by facts and theories derived from pathology and clinical observation, the value of which as evidence had often been but little. The two paths of investigation were independent. The state of advancement of the one might be very different from that of the other, and the utmost caution should be taken to keep them distinct until the arrival of the time when the facts of pharmacology might, in therapeutics, be harmonized with those of pathology.

PROCEEDINGS OF SECTION OF OBSTETRIC MEDICINE.

ON THE INFLUENCE OF UTERINE DISORDERS IN THE PRODUCTION OF NUMEROUS SYMPATHETIC DISTURBANCES OF THE GENERAL HEALTH AND AFFECTIONS OF SPECIAL ORGANS. By Arthur W. Edis, M.D., F.R.C.P. (London):

Dr. Edis directed attention to the prevalence of sick-headaches, often extending over many consecutive years, due entirely to some uterine disorder. Evidence of this was given, headaches of many years' duration having disappeared when some unsuspected uterine disorder was removed; other more general remedies having entirely failed to afford relief. The morning-sickness of early pregnancy was shown to be frequently dependent upon some flexion, inflammatory condition of the body or cervix of the uterus, or some well-recognized uterine disorder. Relief was obtained by directing appropriate treatment to this latter condition. Uterine epilepsy often depended upon ovarian irritation, flexion producing dysmenorrhea, or other well-recognized form of ovarian or uterine disorder. Other neural affections, such as asthma, neuralgia, and chorea, were not infrequently dependent upon some overlooked uterine disorder. Amaurosis, asthenopia, and numerous other pathological conditions of the organ of vision were often found to be due to morbid conditions of uterus. Aphonia, spasm of the glottis, sensation of choking, and other similar reflex phenomena, were often traced to alteration in the position or condition of the uterus.

Miscellany.

ETHER-DRUNK.—During the present week great publicity has been given to an instance of dead-drunkenness from the use of ether. The subject, a French gentleman, is what is incorrectly called "an ether dipsomaniac." He inhales the vapor of ether freely and constantly, and is unable to manage his own affairs so readily and steadily does he intoxicate. He is a gentleman of good means and of thirty-five years, and when he is under his favorite spell he commits mad freaks which, if they do not make the angels weep, give more trouble than weeping to the cabmen, the police, and the civil magistrates of Paris. He has been more than once under restraint; but he relapses when he is free, and now his friends pray that he may be interdicted and that a family council may man-

age his property. This history is strange but not singular. Ether-intoxication is a recognized form of narcotic mania, and has been known to affect the whole of a district. After Father Mathew, by his surprising eloquence, converted the thousands of his countrymen and countrywomen to total abstinence, one of his districts converted from whisky and other alcoholic drinks was reconverted to ether. At Draper's Town, in Ireland, a man followed the good Father and marred his work by teaching the natives not to inhale but to drink ether, and so effective was the teaching that for about forty years there has been in Draper's Town and about it an ether-drinking community. Dr. Richardson, who visited the district in 1877, found the custom still prevailing, and has described how the ether-drinker, first washing out his mouth with cold water, gulps down from two to three ounces of sulphuric ether without wincing, and in a few minutes is in the height of his frenzy. The madness is short, but active while it lasts; and although it does not seem to have been followed by any of the serious consequences related about the Parisian devotee, it is not safe; for Dr. Morewood, of Draper's Town, has met with several cases in which dangerous insensibility has followed ether-drinking, and has, if we remember correctly, known four deaths from it. Curiously enough to the uninitiated the effect of ether in setting up organic disease in those habituated to it is comparatively trifling compared with the effects produced by the habitual use of alcohol; so that in regard to injury of a chronic kind in the vital organs ether is the most merciful tyrant to its victims. It kills them sometimes, but it does it—as poor Frank Buckland tattooed his salmon—as if it loved them, and it does it off-hand.—*London Lancet.*

EDUCATION OF THE FUTURE.—Its characteristics are: The recognition of the fact that there is very little in the world worth knowing; most that passes for knowledge is but varied expressions of ignorance. A recognition of the fact that out of all real knowledge but a trifle, an infinitesimal portion is to be required of any one individual. The recognition of the fact that not knowledge but the power to acquire and use knowledge is the supreme need. The recognition of the fact that very much knowledge that may be acquired is for temporary use only, to be laid aside when the occasion for its use is past.—*Beard.*

WHILE THERE IS LIFE THERE IS HOPE.—The Cincinnati Commercial gives the following list of illustrious men whose lives have been spared to the world when all hope seemed over:

William of Orange-Nassau, the founder of the Dutch Republic, when shot through the face and neck by a Spanish assassin, recovered, contrary to the expectations of both friends and enemies. Richard I, of England, survived the fever that prostrated him in Palestine, though his best physicians had pronounced his case hopeless. Sultan Baber, the Mogul conqueror of India in the sixteenth century, was at one time so reduced by sickness as to be unable to swallow any thing but a few drops of water. The English King William III, although sickly from his very birth, was thrice given up by his doctors before the end came, and even then owed his death chiefly to the effects of a fall. A still more singular instance was that of the famous Italian statesman, Cardinal Bentivoglio, whose life was despaired of from quinsy. The servants and physicians thinking him already dead, had quitted the sick-chamber, and the universal silence emboldened the cardinal's pet monkey to issue from the nook in which it had hidden itself. Putting on its master's red hat, the animal began to admire itself in the mirror, grimacing and chattering so comically that the moribund cardinal burst into a violent fit of laughter, which broke the quinsy and saved his life.

THE HEART-SYMPTOMS OF CHOREA.—Dr. O. Sturges (The Brain) summarizes the several factors of the heart-symptoms thus:

1. In the course of the chorea of childhood the heart is apt to become irregular or uneven, and its first sound to be followed by apex murmur, which is variable in pitch, influenced by posture, seldom audible in the axilla or at the angle of the scapula, and which disappears along with or shortly after the chorea; the heart and the circulation suffering no injury.

2. This liability on the part of the heart to what, from its signs, would seem to be a functional disturbance is independent of the violence or method of the chorea, but dependent upon the age of the patient; the younger children being the most, and the elder the least liable, while beyond childhood there is little if any liability of the kind.

3. These heart-signs of chorea—acute rheumatism being excluded—give rise, as a

general rule, to no symptoms whatever affecting the health or comfort of the child. They make no apparent difference to the prospects of recovery or the structural integrity of the heart. Nevertheless, choreic children having this murmur and happening to die, either with or shortly after recovery from chorea, very commonly exhibit a beading of recent lymph upon the mitral valve. Such, I say, are the chief statements which statistics seem to warrant. I will venture to add another; which so far as I know has never been statistically reckoned, but which no one will gainsay. It is indeed the most constant of all the heart-symptoms of chorea, and met with at a later age than the rest: I mean the acceleration of the heart and the pulse.

THE REPORTING FIEND AGAIN.—Dr. John Ashhurst, of Philadelphia, in referring to some typographical errors in a recent report of his clinical lecture in the New York Med. Record, writes, "I wish to protest that I do *not* use in gonorrhea injections of six OUNCES of acetate of lead to TWO OUNCES of water, nor do I attempt to cure CHANCER with camphor and opium suppositories. I think *two scruples* to *six fluid ounces* quite strong enough for the injection; and it is *chordee*, not chancre, the pains of which I attempt to relieve by the rectal administration of anodynes."—*Medical Times*.

ANOTHER MRS. PARTINGTON.—"How flagrant it is!" said Mrs. Mixer, as she sniffed the odor of a bottle of Jamaica ginger. "It is as pleasant to the oil factories as it is warming to the diagram, and so accelerating to the cistern that it makes one forget all pain, like the ox-hide gas that people take for the toothache. It should have a place in every home where people are subject to bucolics and such like melodies; besides, a spoonful is so salubrious that when run down like a boot at the heel in walking, one feels like a new creature."—*The Druggist*.

THE New England Med. Gazette reports a case of breech presentation in the management of which the doctor vainly tried to dilate the fetal anus, mistaking it for "a rigid os."

DR. JAS. W. SINGLETON, of Paducah, Ky., died September 25th. The funeral procession was the most extensive seen in Paducah for many years.

Selections.

A Case of Suicide by Dynamite.—This curious case of suicide is reported by Dr. Leadman in a late number of the British Medical Journal, and, as he suggests, may prove of interest in a medico-legal aspect:

J. H., aged fifty-six, a well-sinker, of irregular and intemperate habits, on July 12th, concluded a "drinking-bout" of several weeks' duration. During this debauch, one evening, when in company with other men, a man of the party lost a purse containing seventeen pounds. A statement made by H. led to the apprehension and trial of a respectable farmer who was present when the purse was taken. The charge was proved to be groundless. On the 13th, the day of the trial, H., though sober and perfectly rational, failed to appear as a witness, making some excuses to his wife and son. About noon, at the time when he should have been in court, he walked into a garth at the back of his residence, and a neighbor in an adjoining field observing him suddenly fall went to his assistance. He saw blood issuing from his mouth, and at once sent for me. I found the mouth full of blood, and, on examination, the soft palate torn away, the fauces rent, the tongue detached and mutilated, the teeth broken off and splintered, the superior maxillary bones separated and extensively fractured—the fractures extending to the floors of the orbits. Blood was extravasated into the eyeballs, the lower eyelids, and the upper portions of the cheeks. The inferior maxillary bone was broken into about twenty pieces. The skin of the cheeks and lips was intact, save a few scratches on the internal surface of the latter. There was no charring of the tissues. A box of matches was found in his pocket, and one, partly consumed, close to his mouth where he fell. In his trade he used both cartridges and caps containing dynamite, and was well acquainted with this terrible explosive. One of these he had placed in his mouth, and, after igniting the short fuse attached to it, deliberately awaited the result. He survived the lesions two hours, remaining unconscious the whole time. The evidence given at the inquest was considered by the jury conclusive as regarded his sanity, and a verdict of *felo de se* was returned. Although I have both inquired of my friends and examined several works of reference I have failed to discover a similar case recorded.

Another Death under Ether.—We regret to have to notice another death under the influence of ether. Arthur Staines, a miller of Rotherhithe, aged forty-eight, and a patient at Guy's Hospital, was placed under ether on August 27th for the purpose of a surgical operation consequent upon the deceased having run the point of a rusty bill-file into the middle finger of the right hand. From the evidence given at the inquest by Mr. Bernard Scott, the house-surgeon who was in attendance, it transpired that the patient had once suffered from rheumatic fever; but this occurred so long ago, and the sounds of the heart were so clear that no danger was apprehended from that circumstance. The ether was administered, but before the patient was fully under its influence he suddenly ceased to breathe. Artificial respiration was used to restore animation, but without avail. The jury returned a verdict that death was due to syncope. On the evidence which lies before us, we ourselves see no

ground whatever for a verdict of death by syncope. It is very doubtful, indeed, whether under ether syncope can occur at all, except when there is severe loss of blood, and in this case the operation was not commenced when the fatal attack supervened. It was also noticed that the breathing suddenly stopped, which is ordinarily the first step toward death under ether, the heart continuing to act for one or two minutes afterward. It would, we think, be more correct to say that the death commenced at the lungs, and was from asphyxia. The man was a miller by trade, and men of this occupation rarely escape the effects of dust, while they commonly have some portion of lung emphysematous, in which condition they are very easily affected by such an agent as ether, taken in the form of vapor into the lung. In this instance would not local anesthesia have answered every purpose?—*London Lancet.*

Medical and Therapeutic Geography.—The Influence of Race upon the Action of Poisons.

—The researches of M. Chauveau upon the relative immunity of Algerian sheep from malignant pustule give support to this question. M. Bordier finds that the edible frog (*rana esculenta*) and the ordinary frog (*rana temporaria*) act very differently under the influence of the same quantity of caffeine; while the tree frog (*rana viridis*) is less sensitive to the action of veratrin than the two preceding forms. In Tarentin (according to Darwin) the inhabitants only breed the black sheep because the *hypericum crispum* which abounds there kills off all the white sheep within fifteen days. In Virginia the *lacnanthes tinctoria* kills the white fowls, while black ones eat it with impunity. Cl. Bernard showed that different races of dogs and horses possess distinctive physiological characteristics which were proportional to differences in the properties of certain histological elements, more especially in the nervous system. Negroes can take enormous doses of tartar emetic, and according to Dr. Thaly, they can ingest one gram (fifteen grains) in the course of twenty-four hours with no more effect than would be produced by five centigrams (three fourths of a grain) in a white man; they also bear mercury well. Broca also noticed that decomposition sets in more slowly in the bodies of persons belonging to this race. The negro can similarly carry a large quantity of alcohol without being overpowered by it; and in the black, white, and yellow races an equal quantity of alcohol will not produce a similar state of intoxication. The yellow race can take large doses of drastic medicines.—*Four. Therap.*

On the Treatment of Angina Pectoris and other Forms of Cardiac Pain.

—Balfour says that arsenic is indispensable in all forms of weak heart accompanied by pain. It is useful in all such cases, and in many cases it is quite successful in putting a stop to the pain. Several cases have occurred to me where arsenic alone has removed angina after a few weeks' treatment, not only temporarily but permanently. Its tendency to irritate the bowels in some patients may be overcome by the addition of opium or diminution of the dose. One granule of Nativelle's digitalin, night and morning, with arsenic, strychnia, and iron twice a day, after food, is a sort of model treatment in such cases. This treatment is often attended with the happiest results in those cases susceptible of improvement, which are by no means of infrequent occurrence.—*Edinburgh Med. Journal.*